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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/631,223	07/28/2003	Woohong Kim	84,949	3303

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EXAMINER

MCPHERSON, JOHN A

ART UNIT	PAPER NUMBER
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1756

DATE MAILED: 03/31/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/631,223

Applicant(s)

KIM ET AL.

Examiner

John A. McPherson

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 28 July 2003 and 25 November 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 18-41 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 18-41 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 July 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 7/28/03.
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Double Patenting***

1. Applicant is advised that should claim 19 be found allowable, claim 25 will be objected to under 37 CFR 1.75 as being a substantial duplicate thereof. When two claims in an application are duplicates or else are so close in content that they both cover the same thing, despite a slight difference in wording, it is proper after allowing one claim to object to the other as being a substantial duplicate of the allowed claim. See MPEP § 706.03(k).

### ***Claim Rejections - 35 USC § 112***

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 18-25 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 18 recites the limitation "the unexposed regions" in line 4. There is insufficient antecedent basis for this limitation in the claim.

### ***Claim Rejections - 35 USC § 102/103***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

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(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 18-21, 23-32 and 34-41 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over US 5,828,432 to Shashidhar et al. (Shashidhar). Shashidhar discloses a conducting substrate for use in a display device having a conducting polymer on the surface of a rigid, flexible, flat, curved or bent substrate, wherein the conducting polymer is preferably deposited in a pattern. See the abstract; column 3, lines 10-12; column 8, line 50 to column 9, line 2; and Figure 5. Furthermore, the conducting polymer layer preferably comprises polyaniline, polypyrrole or polythiophene, or derivatives of their monomers. See column 3, lines 40-63.

The patterned conductive polymer of the present invention appears to be the same or similar to that of the prior art, although produced by a different process, because the patterned conductive polymers of the present invention and the prior art comprise the same materials. Furthermore, like the patterned conductive polymer of the present invention, the patterned conductive polymer of the prior art has not been affected by any relatively harsh treatment which would increase its surface resistance.

Even though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of the product does not depend upon its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior art product was made by a different process. See MPEP 2113.

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 18-41 are rejected under 35 U.S.C. 103(a) as being unpatentable over US 5,828,432 to Shashidhar et al. (Shashidhar) in view of "Patterning Orgacon™ Film by Means of UV Lithography" [cited in the Information Disclosure Statement filed 7/28/03] (Agfa). The disclosure of Shashidhar is discussed above in paragraph 3. However, with respect to claims 22 and 33, Shashidhar does not disclose an embodiment wherein the conducting polymer comprises PEDOT:PPS.

Agfa discloses a patterned conductive film comprising PEDOT/PPS (poly (3,4) ethylenedioxythiophene / polystyrenesulfone acid). See [1] Introduction. It would have been obvious to one skilled in the requisite art to utilize PEDOT:PPS, as taught by Agfa, as the polythiophene derivative in the patterned conductive film of Shashidhar, because

it is taught that PEDOT/PPS is a useful material for preparing patterned conductive polymer films, and it is taught that any derivative that produces a conducting polymer can be utilized as the conducting polymer of Shashidhar.

***Information Disclosure Statement***

5. Receipt of the Information Disclosure Statement filed 7/28/03 is acknowledged. However, only pages 1 and 3 of the reference "Patterning Orgacon<sup>TM</sup> Film by Means of UV Lithography" have been received. The Examiner requests that Applicant supply a complete copy of this reference with the response to this Office Action (the Examiner has reviewed 09/983,692, i.e. the parent of the present application, however a copy of this reference is not present in the parent file).

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to John A. McPherson whose telephone number is (571) 272-1386. The examiner can normally be reached on Monday through Friday, 8:00 AM to 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark Huff can be reached on (571) 272-1385. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR.

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Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



John A. McPherson  
Primary Examiner  
Art Unit 1756

JAM  
3/24/06